

# COMETER THERMOMETERS, HYGROMETERS, BAROMETERS for direct measurement and logging



- dual line LCD display with special symbols
- adjustable dual alarm with audio
- indication for each channel
- memory of minimum and maximum values
- function Hold - manual storing of actual
- values for later displaying

Instruments are designed for direct measurement and datalogging to internal nonvolatile memory in adjustable time interval. Recorded data is possible to transfer by means of free program via serial Rs232 link to a PC for archiving or analyzing. Instrument is connected to a PC by included communication cable only for data transfer from the memory. During connection to the PC nor measurement and record is enabled. Instruments are designed for non-aggressive air measurement.

Thermo-hygrometer C3120,D3120  
Thermo-hygro-barometer C4130,D4130

## TECHNICAL PARAMETERS - all instruments:

Operating temperature range:	-10 to +60°C
Temperature sensor:	RTD
Accuracy of temperature measurement:	±0.4 °C at range -50 to +100 °C, ±0.5% from reading from +100 to +250 °C
Accuracy of air humidity measurement:	±2.5%RH at 23 °C at range 5 to 95%, resolution 0.1%
Accuracy of dew-point reading:	±0.5 °C at range 30 to 95%RH
Accuracy of air-pressure measurement:	±2hPa at 23 °C, resolution 0.1hPa
Power:	battery 9V
Battery life:	4 months typically (barometers 2 months typically)
Dimensions:	141 x 71 x 27mm

## TECHNICAL PARAMETERS - loggers (type names beginning from D) :

Modes of logging:	<ol style="list-style-type: none"> <li>1. manual logging - capacity of 1000 stored value sets</li> <li>2. automatic noncyclic logging (logging stops after filling the memory) - total capacity of 16000 values</li> <li>3. automatic cyclic logging (logging continues after filling the memory - oldest values are being replaced by newest) - total capacity approx. 15200 values</li> </ol>
Real time clock:	year, leap year, month, day, hour, minute, second
PC interface:	serial RS232
Sampling interval in logging mode:	18 adjustable values from 10s to 24hours (10s, 1min, 2min, 3min, 4min, 5min, 10min, 15min, 20min, 30min, 1h, 2h, 3h, 4h, 6h, 8h, 12h, 24h)

## INSTRUMENTS ARE AVAILABLE IN THE FOLLOWING TYPES:

Type	Description	Measuring range
C3120	THERMOMETER-HYGROMETER with switchable dew-point temperature reading, built-in sensors	temperature -10 to +60°C relative humidity 5 to 95%RH
D3120	same as C3120, in addition 3 logging modes with PC interface	
C3121	THERMOMETER-HYGROMETER with switchable dew-point temperature reading and external temperature-humidity probe with 1meter cable. Cable lengths 2 meters and 4 meters available optionally. Probe diameter of 18mm, length of 135mm.	temperature -30 to +105°C* Relative humidity 0 to 100%RH
D3121	same as C3121, in addition 3 logging modes with PC interface	
C3631	THERMOMETER-HYGROMETER with switchable dew-point temperature reading, built-in sensors. A Cinch connector for connection of an external RTD Ni1000/6180ppm temperature probe. Surface, pointed-tip, insertion and other probes with Cinch connector are available. Indication of temperature difference of external probe and dew-point temperature.	air temperature -10 to +60°C probe temperature -50 to +250°C
D3631	same as C3631, in addition 3 logging modes with PC interface	relative humidity 5 to 95%RH

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Type	Description	Measuring range
C3633	THERMOMETER-HYGROMETER simultaneous reading of temperature and relative humidity, dew-point temperature reading selectable, built-in sensors. Surface temperature probe on the instrument back side with attaching magnets. Indication of temperature difference of surface probe and dew-point temperature. Adjustable audio and optical alarm for indication of the temperature difference for application of surface coatings	air temperature -10 to +60 °C surface temperature -10 to +60 °C relative humidity 5 to 95%RH
D3633	same as C3633, in addition 3 logging modes with PC interface	
C4130	THERMO-HYGRO-BAROMETER with switchable dew-point temperature reading, built-in sensors, air pressure trend reading for last 3 hours	temperature -10 to 60 °C relative humidity 5 to 95%RH air pressure 800-1100hPa
D4130	same as C4130, in addition 3 logging modes with PC interface	
C4141	THERMO-HYGRO-BAROMETER with external temperature-humidity probe on a 1 meter cable. Built-in indoor temperature and air pressure sensors. Switchable dew-point temperature reading, air pressure trend reading for last 3 hours. Cable lengths 2 meters and 4 meters available optionally. Probe diameter of 18mm, length of 135mm.	outdoor temperature -30 to 105 °C* indoor temperature -10 to 60 °C relative humidity 0 to 100%RH air pressure 800-1100hPa
D4141	same as C4141, in addition 3 logging modes with PC interface	

\* Temperature from +85 to +105 °C with the limitation specified in the graph

## INCLUDED ACCESSORY:

**Traceable calibration certificate** from the manufacturer, instruction manual. Calibration certificate with declared metrological traceability of etalons is based on requirements of EN ISO/IEC 17025 standard.

All instruments are equipped with connector for external ac/dc adapter.

- Loggers (types Dxxxx) come complete with a plastic transport case, 9V battery, communication cable for PC. Free Windows program is ready to download at [www.cometsystem.cz](http://www.cometsystem.cz) Program enables to control all logger functions and viewing and printing of data in numerical and simple graphic formats. It is possible to export data to dbf or txt formats.
- Instruments with no PC interface (types Cxxxx) are delivered in a plastic case. 9V battery is included.

## OPTIONAL ACCESSORY:

- MP006** - RS232/USB converter for communication with the PC via USB port
- F5200B** - sensor protection with filter from stainless steel mesh for instruments C/D3121, C/D4141. Filtering capability 0.025mm.
- F1000** - sensor protection from sintered bronze for instruments C/D3121, C/D4141. Filtering capability 0.025mm.
- for easy mounting of C/D3121, C/D4141 instruments probes it is possible to order circular plastic flange **PP4** with gland or right-angled stain-less steel flange **PP90** with gland for wall mounting.
- A1515** - adapter 230V-50Hz/12Vdc. 9V battery should be replaced with NiCd accumulator 9V.
- A3400** - NiCd accumulator 9V
- SW100** - CD with free PC program for Dxxxx loggers
- SWR004** - Optional software for Windows - color printing, vertical and horizontal zooming of graphs and other functions (only for Dxxxx loggers)

